EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Wayne F. Reinke on 4/24/2009.

The application has been amended as follows:

In the Specification:

Please replace paragraph [0013] on page 3, with the following amended paragraph:

[0013] Grid computing enables the virtualization of distributed computing and data resources such as processing, network bandwidth and storage capacity to create a single system image, granting users and applications seamless access to vast information technology (IT) capabilities. Often, the systems of a grid computing environment are heterogeneous systems. That is, at least one system of the plurality of systems of the environment includes different hardware and/or software from at least one other system of the environment. Additionally or alternatively, the systems may be geographically distant from one another. Further details regarding grid computing may be found at IBM's website~~, for instance, at www.1.ibm.com/grid/about_grid/what__is.shtml~~.

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of balancing workload of a grid computing environment, grid computing enabling virtualization of distributed computing and data resources to create a single system image from a plurality of systems, said method comprising:

obtaining scheduler information, by a manager daemon within one system of a plurality of systems in a grid computing environment, from a scheduler of another system of the grid computing environment, said scheduler information including current free nodes of the another system, job queue of waiting jobs for the another system, shadow time for the next waiting job of the another system indicating how long the job needs to wait for resources, and one or more resources currently unavailable due to shadow time, wherein the plurality of systems are at least one of heterogeneous and geographically distant from each other; and

performing by the manager daemon workload balancing among at least two systems of the plurality of systems in the grid computing environment, each system of the at least two systems comprising a scheduler to schedule workload on its system, said workload balancing using at least a portion of the obtained scheduler information,

and wherein the workload balancing comprises backfill scheduling a job, said backfill scheduling allowing the job to run out of order as long as it does not affect the start time of another job scheduled to execute,

wherein the scheduler on each system of the plurality of systems is configured to perform backfill scheduling.

2. (Canceled)

3.(Previously Presented) The method of claim 1, wherein scheduler information is obtained from at least two schedulers, and wherein one scheduler of the at least two schedulers is a different scheduler from at least one other scheduler of the at least two schedulers.

4-5. (Canceled)

6. (Previously Presented) The method of claim 1, wherein the workload balancing includes:

determining which system of said at least two systems a job is to be assigned; and assigning the job to the determined system.

7. (Previously Presented) The method of claim 1, wherein the workload balancing includes:

removing a job from one system of the at least two systems; and

assigning the job to another system of the at least two systems.

8-20. (Canceled)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/
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